

Claims

The claimed invention is:

1. A video display device comprising:

a display configured to display a primary image and a picture-in-picture image (PIP) overlaying the primary image;

a processor operatively coupled to the display and configured to receive a first video data stream for the primary image, to receive a second video data stream for the PIP, and to change a PIP display characteristic in response to a received audio indication and a related gesture from a user.

2. The video display device of Claim 1, wherein the PIP display characteristic is at least one of a position of the PIP on the display and a display size of the PIP.

3. The video display device of Claim 1, comprising:

a microphone for receiving the audio indication from the user; and

a camera for acquiring an image of the user containing the related gesture.

1 8. The video display device of Claim 1, wherein the processor
2 is configured to determine the received gesture by analyzing an
3 image of the user and determining a posture of a hand of the
4 user.

1 9. The video display device of Claim 1, wherein the video
2 display device is a television.

1 10. The video display device of Claim 1, wherein the image is a
2 sequence of images of the user containing the user gesture, the
3 video display device comprising a camera for acquiring the
4 sequence of images of the user.

1 11. A method of controlling a display characteristic of a
2 picture-in-picture display (PIP) overlaying a primary display,
3 the method comprising:

4 receiving an audio indication from a user;

5 determining whether the received audio indication is one of
6 a plurality of expected audio indications;

7 analyzing a gesture of the user if the received audio
8 indication is one of the plurality of expected audio
9 indications; and

10 controlling the display characteristic if the gesture is a
11 gesture related to the received audio indication.

1 12. The method of Claim 11, wherein analyzing the gesture
2 comprises:

3 receiving a sequence of images; and

4 analyzing the sequence of images to determine the gesture.

1 13. The method of Claim 11, wherein analyzing the gesture
2 comprises:

3 receiving a sequence of images;

4 analyzing the sequence of images to determine a trajectory
5 of a hand of the user; and

6 determining the gesture by the determined trajectory.

1 14. The method of Claim 11, wherein analyzing the gesture
2 comprises:

3 analyzing an image of the user to determine a posture of a
4 hand of the user; and

5 determining the gesture by the determined posture .

1 15. A program segment stored on a processor readable medium for
2 controlling a display characteristic of a picture-in-picture

3 display (PIP) overlaying a primary display, the program segment
4 comprising:

5 a program segment for controlling receipt of an audio
6 indication;

7 a program segment for determining whether a received audio
8 indication is one of a plurality of stored audio indications;

9 a program segment for analyzing a gesture of the user if
10 the received audio indication is one of the plurality of stored
11 audio indications; and

12 a program segment for controlling the display
13 characteristic if the gesture is a gesture related to the
14 received audio indication.

15 16. The program segment of Claim 15, wherein the program
16 segment for analyzing the gesture comprises:

17 a program segment for controlling receipt of a sequence of
18 images; and

19 a program segment for analyzing the sequence of images to
20 determine the gesture.

21 17. The program segment of Claim 15, wherein the program
22 segment for analyzing the gesture comprises:

3. a program segment for controlling receipt of a sequence of
4. images;

5 a program segment for analyzing the sequence of images to
6 determine a trajectory of a hand of the user; and

7 a program segment for determining the gesture by the
8 determined trajectory.

1 18. The program segment of Claim 15, wherein the program
2 segment for analyzing the gesture comprises:

3. a program segment for analyzing an image of the user to
4. determine a posture of a hand of the user; and

5 a program segment for determining the gesture by the
6 determined posture.